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09/253,944	02/22/1999	FUMIO NARISAWA	381NP/47598	6255

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EXAMINER
INGBERG, TODD D

ART UNIT	PAPER NUMBER
2124	26

DATE MAILED: 11/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.		Applicant(s)	
Office Action Summary	09/253,944		NARISAWA ET AL.	
	Examiner		Art Unit	
	Todd Ingberg		2124	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 September 2003*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,8,11 and 12* is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,8,11,12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a)☐ All b)☐ Some * c)☐ None of:

　　　1.☐ Certified copies of the priority documents have been received.

　　　2.☐ Certified copies of the priority documents have been received in Application No. _____.

　　　3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application)
since a specific reference was included in the first sentence of the specification or in an Application Data Sheet.
37 CFR 1.78.

　　a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific
reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)	4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) ☐ Notice of Informal Patent Application (PTO-152)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .	6) ☐ Other: .

DETAILED ACTION

Claims 1 , 8, 11 and 12 have been examined.

Claims 1 and 11 have been amended.

Claim Rejections - 35 USC § 112

1.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2.   Claims 1, 8,11 and 12 rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The support in the Specification for the new limitation is not present in the application. The Examiner made an observation. The claim limitation also is not with in the scope of the invention. It is so broad it reads on any program written and rewritten.

Claim Rejections - 35 U.S.C. § 102

3.   ᐟ   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -

> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4.   Claims 1 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by

USPN 6,230,314 **Sweeney** et al files October 2, 1997.

Rejection of claims 1 and 8 are maintained in view of the rejection under 112 first paragraph.

Claim 1

Sweeney anticipates a software generation system comprising: a specification analysis means

which analyzes an object-oriented specification for deriving specification information (**Sweeney,**

col 2, lines 14 -15, "This is accomplished by an analysis ..."); an optimized information input

means for inputting optimized information from an external unit (Interpreted as the reading of the

class structure from the file on a disk drive which is inherent), indicating a necessity or lack of

necessity for use of a dynamic generation function for dynamic generation of an instance

representing one of a set of object oriented functions (**Sweeney,** col 1, lines 57 - 59, " ...where a

given member is (un) used by some, not all instances of a given class." - the determining which

are to be eliminated and which are not to eliminate dead executable code and the second step in

(**Sweeney,** col 2, lines 15-17, "... , followed by the construction of a new, specialized class ..."); a

function removing means which checks said specification information derived by said

specification analysis means and the optimized information input via said optimized information

inputting means by collating with a predetermined function removal rule (**Sweeney,** Figure 18

shows the pseudo code for the updating step and col 2, lines 15 - 19 the transformation where the

dead executable code is optimized away) , which removes a function which becomes unnecessary

from a set of object-oriented functions by which members are realized, for generating from the

specification information and the optimized information as per the steps above, program

information excluding the unnecessary function; and a code generation means for generating a

code according to said program information obtained by said function removing means

(**Sweeney**, col 2, lines 29 - 33).

Claim 8

The software generation system according to Claim 1, further comprising: an analysis result

display means for displaying a status of use of an object-oriented function by which a member is

realized from the specification information (**Sweeney**, Figure 19, shows the Specialized Class

Hierarchy resulting from Step 705(b) and updated program resulting from Step 705(c) for the

example program of FIG. 11.).

5.   **Claims 11 and 12** are rejected under 35 U.S.C. 102(a,b) as being anticipated by

Template Software's commercial product the programming language **SNAP** as documented in

the manual "Using the SNAP Development Environment".

Claim 11

Template Software anticpates a software generation system comprising (SNAP Programming

language and development environment): a specification analysis means which analyzes an

object-oriented specification for deriving specification information (**SNAP**, page 3-44, Figure 3-

8, Function Tab part of Class Editor) ; an optimization instruction input means for a system

operator inputting an optimization instruction via an external unit (**SNAP**, page 3-45, Table 3-26,

mouse click on table - GetByRmt Schema example in display 3-44), indicating use or lack of use

of respective object oriented functions contained within a set of object oriented functions

(**SNAP**, page 3-45, click on as per above and delete, new, edit functions from table 3-26)

; a function removing means which checks said specification information derived by the

specification analysis means (**SNAP**, page 3-45, delete function) and said optimization

instruction input via the optimization instruction inputting means (**SNAP**, page 3-44 to 3-45 as

per above), by collating with a predetermined function removal rule (**SNAP**, page 2-39, Building

an Application Executable), which removes a function that becomes unnecessary from said set of

object-oriented functions by which members are realized (**SNAP**, page 3-45, click on as per

above and delete, new, edit functions from table 3-26 and page 3-45, delete function), for

generating from the specification information and the optimization instruction entered by said

system operator, program information excluding the unnecessary function (**SNAP**,page 3-45,

click on as per above and delete, new, edit functions from table 3-26 and page 3-45, delete

function); and a code generation means for generating a code according to said program

information obtained by said function removing means (**SNAP**, page 2-39 as per above

dependencies in bullet item).

Claim 12

The software generation system according to Claim 11, further comprising an analysis result

display means for displaying a status of use of an object-oriented function by which a member is

realized from the specification information (**SNAP**, page 3-44, figure 3-8).

Response to Arguments

6.   Applicant's arguments filed January 30, 2003 have been fully considered but they are not persuasive.

Claims 1 and 8 do not clearly claim the programmer's interaction with the optimization steps. In the broadest reasonable interpretation the programmer when performing the normal function of programming selects from a class browser portions of libraries that are to be included in the code is optimization. Thus programmers in an object oriented environment routinely optimize through their interaction of selecting components etc. Claim 11 does not clearly claim the optimization step as being after the program is built and reads on the normal operations of a OO programmer.

Allowable Subject Matter

7.   It is the interpretation that figures 5 and 12 show allowable subject matter. The following is the interpretation of the Examiner from the interview as the novel aspects of the invention. The optimization step is performed after the program is written. The current claim language does not distinguish this additional step. This is critical since object oriented programmers select which classes to use of not to use as a matter of programming in the object oriented environment (OO) . The current claim language in the broadest reasonable interpretation fails to distinguish over the normal actions of an OO programmer. It is possible to interpret a function removing means to be the code generation through inheritance of an object model resulting from a programmers interaction. Current scope of claim limitation not in scope of invention.
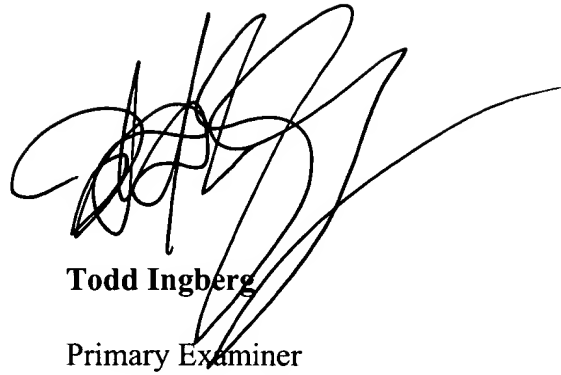
What the Examiner interprets as novel is the additional step after a programmer has performed the normal steps of writing an object oriented program where the analysis means is performed and the system offers use or don't use options on methods via screen such as the figures mentioned above. This added step has an element of risk because the programmer can delete a method associated with the program one or more times with the hope it does not cause an error (Figure 17 A). These distinctions are not clearly present. It is the Examiner's duty to give further search and consideration to all amendments. The Examiner encourages an after final amendment to clearly make these distinctions.

Correspondence Information

8.   Any inquiry concerning this communication or earlier communications from the Examiner should be directed to **Todd Ingberg** whose telephone number is **(703) 305-9775.** The Examiner is working a Maxi-Flex schedule and can be reached Monday through Friday. If attempts to reach the examiner by telephone are unsuccessful, the **Examiner's Supervisor, Kakali Chaki** be reached at **(703)305-9662.** Any response to this office action should be mailed to: **Director of Patents and Trademarks Washington, D.C. 20231,** or **Hand-delivered** responses should be brought to **Crystal Park II, 2121 Crystal Drive Arlington, Virginia, (Receptionist located on the fourth floor),** or **faxed.** The following **fax numbers** apply:

Official   **(703) 872-9306**

Todd Ingberg

Primary Examiner

Art Unit 2124

November 16, 2003